

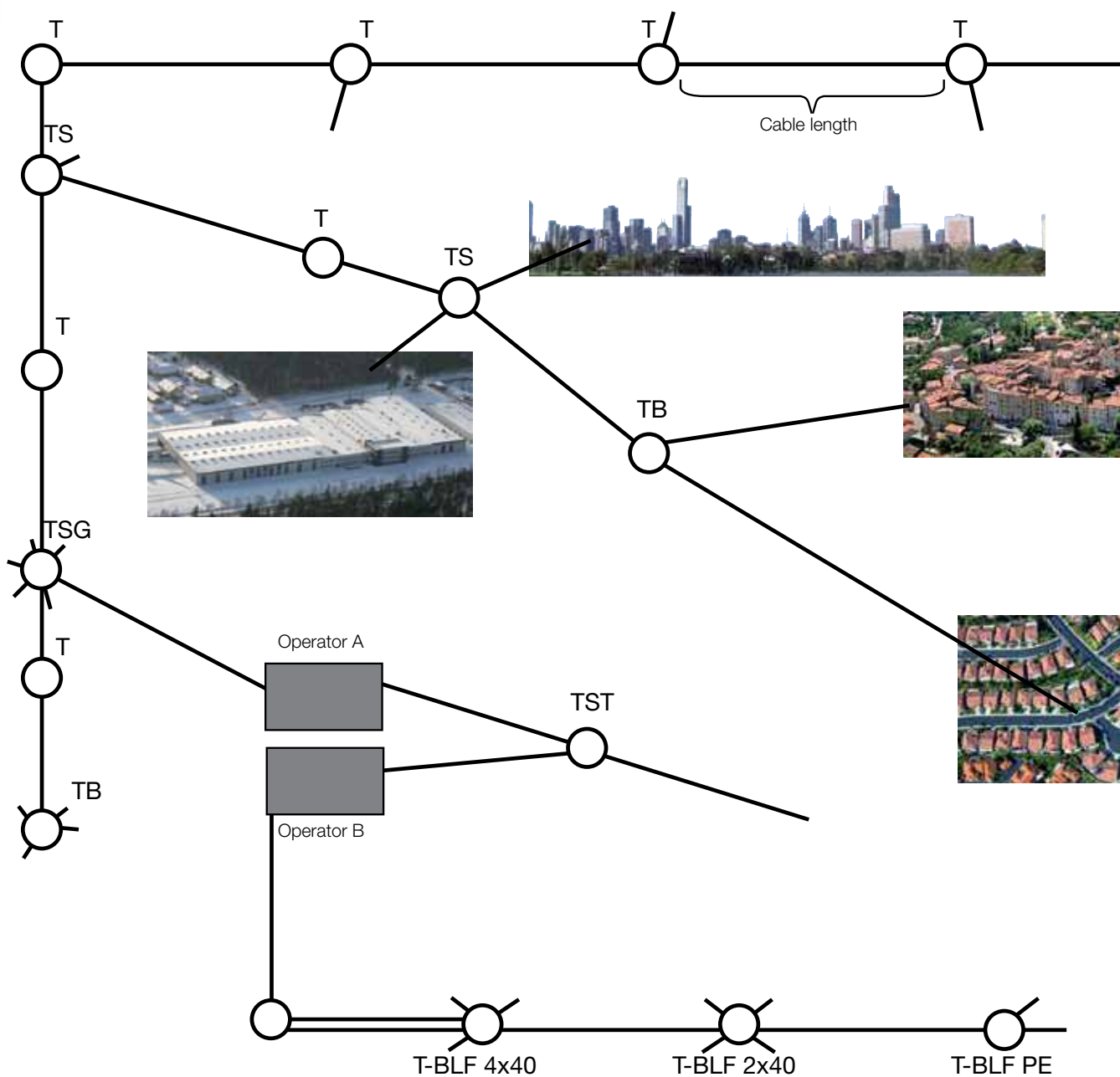
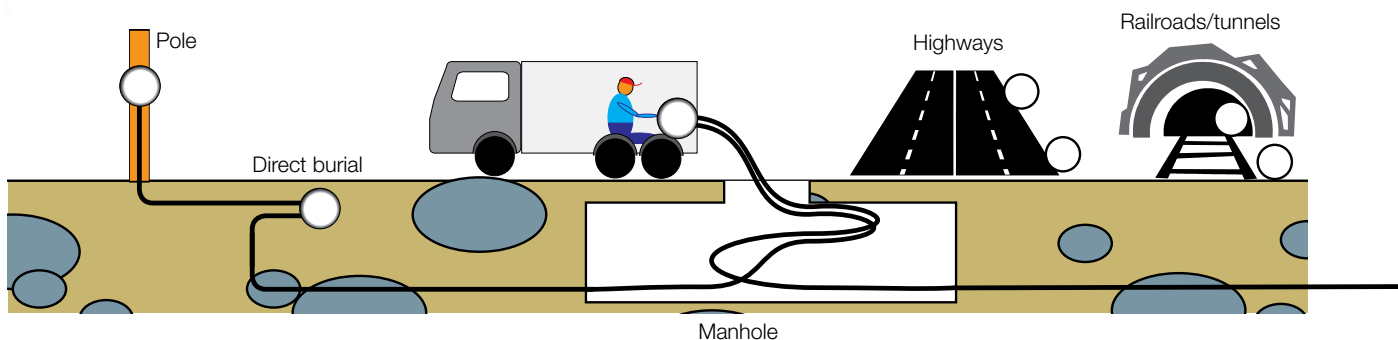
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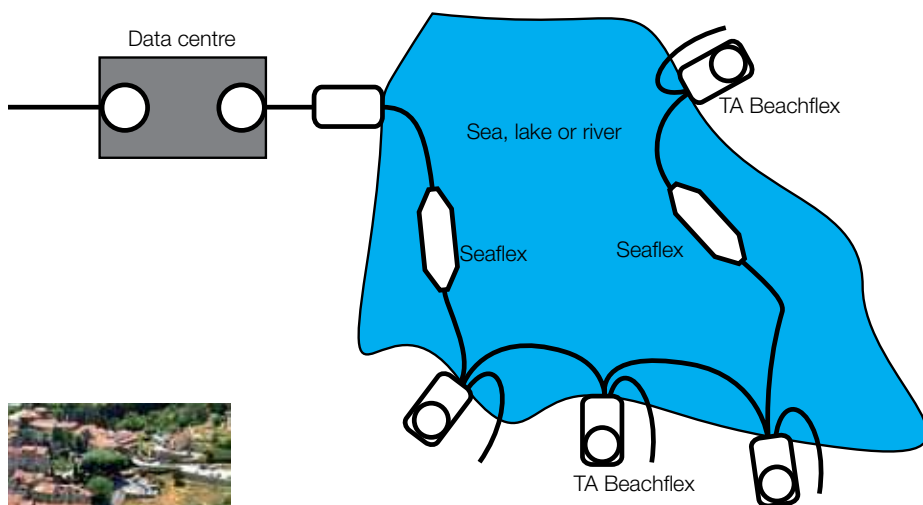
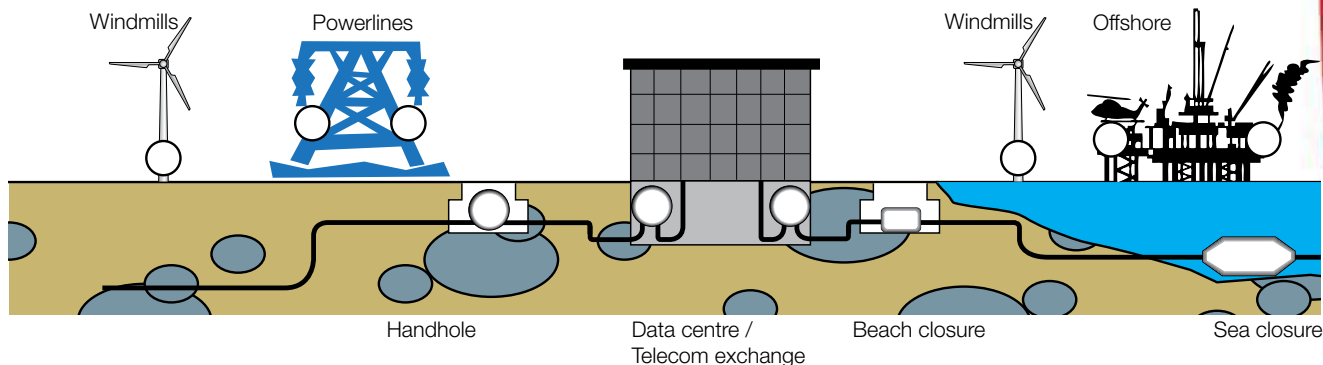


C O M M U N I C A T I O N

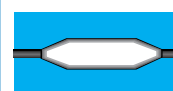
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APPLICATION MAP FOR T240 OUTSIDE PLANT CLOSURES





### Seaflex



See separate documents at [www.tykoflex.se](http://www.tykoflex.se)

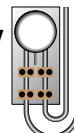
### TA Beachflex (pan)



Connection point between submarine cable and duct cable on shore.

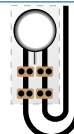
### Power Line Closures (pan)

#### T-OPGW



Line joint for OPGW cable. With branching possibilities. Special clamps for rigid cable.

#### T-ADSS



Line joint for ADSS cable. With branching possibilities. Special clamps for semi rigid cable.

### Backbone Closures (pan)

#### T



Line joint between cable lengths. One branching as option.

#### TS



Midspan opening. Two branchings included.

#### TSG



Midspan opening. Six branchings included.

#### TST



Crossconnect as dual operator interface. Two branchings as options.

### Distribution Closure - Access Networks

#### TB



Distribution point. Dome closure ("butt") entry.

### Distribution Closure - Heavy duty cables

#### TBK



Distribution point. Dome closure ("butt") entry.

### T-BLF Blown Fibre Closures (pan)

#### Inline 2x40



Blown fibre. Four branchings as option.

#### Inline 4x40



Blown fibre. Two branchings as option.

#### PE-Parallel entry



Blown fibre. One branching as option.



## T, TS, TSG FOR MANHOLES, POLES, TUNNELS

### T

- + Line joint closure for joining of cable lengths
  - + One optional branching
  - + One side entry/exit - simplifies lift-up from manhole to service vehicle/tent
  - + Lockable with item 11 218 056 Locking Cap
  - + Included: Blind plug SS, 2x24 mm Cable Bushings for 9-24 mm cables, kit for hot sealing (shrink tube, emery cloth), Absorbent Bag and
  - + Instruction Manual 719 990 01
  - + Branch-off for all types of cable bushings
- Multicassettes are ordered separately



T	Art. No.	Interior diameter/ lid height, mm	Exterior diameter/ total height, mm	Max no of Multi- cassettes	No of optional branchings	Max splicing capacity			
						Single fibre: 24/36 per Multi-cassette	4-ribbon: 72 per Multi-cassette	8-ribbon: 144 per Multi-cassette	12-ribbon: 108 per Multi-cassette
	11 100 201	240/50	270/140	4	1	96/144	288	576	432
	11 100 203	240/70	270/160	6	1	144/216	432	864	648
	11 100 205	240/150	270/250	10	1	240/360	720	1440	1080
	11 100 207	240/200	270/330	16	1	384/576	1152	2304	1728

### TS

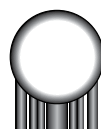
- + Oval entry for cable with uncut fibres. (midspan)
- + Two open cable bushing ports
- + One side entry/exit - simplifies lift-up from man-hole to service vehicle/tent
- + Lockable with item 11 218 056 Locking Cap
- + Included: Kit for oval entry heat shrink sealing (shrink tube, emery cloth and branch-off clip), Absorbent Bag and Instruction Manual 719 990 01
- + Branch-off for all types of cable bushings
- + Cable Bushings, Multicassettes and Blind Plugs ordered separately



TS	Art. No.	Interior diameter/ lid height, mm	Exterior diameter/ total height, mm	Max no of Multi- cassettes	No of optional branchings	Max splicing capacity			
						Single fibre: 24/36 per Multi-cassette	4-ribbon: 72 per Multi-cassette	8-ribbon: 144 per Multi-cassette	12-ribbon: 108 per Multi-cassette
	11 100 401	240/50	270/150	4	2	96/144	288	576	432
	11 100 403	240/70	270/170	6	2	144/216	432	864	648
	11 100 405	240/150	270/260	10	2	240/360	720	1440	1080
	11 100 407	240/200	270/340	16	2	384/576	1152	2304	1728

### TSG

- + Oval entry for cable with uncut fibres. (midspan)
- + 6 pre-mounted and pre-sealed branch-off cable entries, - 4 with 16 mm and 2 with 25 mm
- + 12 Microcable connections also possible with cold sealing onto the four 16 mm cable entries, with TKT S 3x7
- + One side entry/exit - simplifies lift-up from man-hole to service vehicle/tent
- + Lockable with item 11 218 056 Locking Cap
- + Included: Kit for oval entry heat shrink sealing (shrink tube, emery cloth and branch-off clip), Absorbent Bag and Instruction Manual 719 990 01
- + Multicassettes ordered separately



TSG	Art. No.	Interior diameter/ lid height, mm	Exterior diameter/ total height, mm	Max no of Multi- cassettes	No of optional branchings	Max splicing capacity			
						Single fibre: 24/36 per Multi-cassette	4-ribbon: 72 per Multi-cassette	8-ribbon: 144 per Multi-cassette	12-ribbon: 108 per Multi-cassette
	11 100 501	240/50	270/160	4	6	96/144	288	576	432
	11 100 503	240/70	270/180	6	6	144/216	432	864	648
	11 100 505	240/150	270/270	10	6	240/360	720	1440	1080
	11 100 507	240/200	270/350	16	6	384/576	1152	2304	1728

## POWERLINE CLOSURES



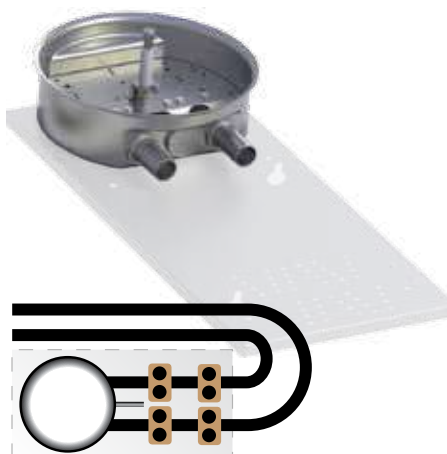
### T-OPGW



- + Power line closures, with special strain relief plate for OPGW rigid wire
- + Line joint closure for joining of cable lengths
- + One optional branching
- + Included: Blind Plug SS, and 2 x 24 mm Bushings
- + Cable Branching Kit and Multicassettes are ordered separately
- + Mounted with Pole Bracket 800 (page 13)
- + Cable Clamps 11 218 2xx are ordered separately, with indication of cable diameter in mm.

T-OPGW	Including strain relief plate Art. No.	Interior diameter/ lid height, mm	Exterior diameter/ total height, mm	Max no of Multi-cassettes	No of optional branchings	Max splicing capacity			
						Single fibre: 24/36 per Multi-cassette	4-ribbon: 72 per Multi-cassette	8-ribbon: 144 per Multi-cassette	12-ribbon: 108 per Multi-cassette
	11 120 230	240/50	270/140	4	1	96/144	288	576	432
	11 120 232	240/70	270/160	6	1	144/216	432	864	648
	11 120 234	240/150	240/150	10	1	240/360	720	1440	1080
	11 120 236	240/200	240/200	16	1	384/576	1152	2304	1728

### T-ADSS



- + Power line closures for ADSS
- + Line joint closure for joining of cable lengths
- + One optional branching
- + Included: Blind Plug SS, and 2 x 24 mm Bushings
- + Cable Branching Kit and Multicassettes are ordered separately
- + Mounted with Pole Bracket 800 (page 13)
- + Cable Clamps 11 218 2xx are ordered separately, with indication of cable diameter in mm.

T-ADSS	Art. No.	Interior diameter/ lid height, mm	Exterior diameter/ total height, mm	Max no of Multi-cassettes	No of optional branchings	Max splicing capacity			
						Single fibre: 24/36 per Multi-cassette	4-ribbon: 72 per Multi-cassette	8-ribbon: 144 per Multi-cassette	12-ribbon: 108 per Multi-cassette
	11 100 312	240/50	270/140	4	1	96/144	288	576	432
	11 100 3xx	240/70	270/160	6	1	144/216	432	864	648
	11 100 320	240/150	270/250	10	1	240/360	720	1440	1080
	11 100 3xx	240/200	270/330	16	1	384/576	1152	2304	1728
	11 214 114	Strain relief, power line closures							

### TST



- + Crossconnect or interconnect for fibre optic cables, "Outdoor ODF"
- + Can also be used as test point
- + Two open cable bushing ports
- + Oval entry for cable with uncut fibres. (midspan)
- + Lockable with item 11 218 056 Locking Cap
- + Included: 1, 2 or 4 Multicassettes respectively, kit for oval entry heat shrink sealing (shrink tube, emery cloth and adhesive string branch-off clip), Absorbent Bag and Instruction Manual 719 990 01
- + Blind Plugs and Cable Bushings are ordered separately

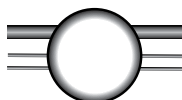
TST	Art. No.	Interior diameter/ lid height, mm	Exterior diameter/ total height, mm	Max no of Multi-cassettes	No of optional branchings	Max splicing capacity			
						Single fibre: 24/36 per Multi-cassette	4-ribbon: 72 per Multi-cassette	8-ribbon: 144 per Multi-cassette	12-ribbon: 108 per Multi-cassette
	11 100 451	240/50	270/150	1	2	24/36	72	144	108
	11 100 453	240/70	270/170	2	2	48/72	144	288	216
	11 100 455	240/150	270/260	4	2	96/144	288	576	432
With 12 x SC Simplex, 12 x SC Duplex and 24 SC Duplex for 11 100 451, 11 100 453, 11 100 455 respectively									



## T-BLF - BLOWN FIBRE CLOSURES

### T-BLF 2X40

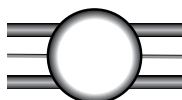
- + Line joints and branchings for max 40 mm ducts with blown fibre
- + Open cable bushing ports, suitable for ducts or cables
- + Suitable for above ground and man-hole installations
- + No IP tightness value stated - Tightness relying on sealing of total duct installation
- + Lockable with item 11 218 056 Locking Cap
- + Included: Instruction Manual 719 990 01
- + Blind Plugs, Cable Bushings, Shrink Tubes, and Multicassettes are ordered separately



T-BLF 2x40 Inline	Interior diameter/ lid height, mm	Exterior diameter/ total height, mm	Max no of Multi- cassettes	No of optional bran- chings	Max splicing capacity			
					Single fibre: 24/36 per Multi- cassette	4-ribbon: 72 per Multi- cassette	8-ribbon: 144 per Multi- cassette	12-ribbon: 108 per Multi- cassette
Art. No.								
11 100 811	240/50	270/140	4	3	96/144	288	576	432
11 100 813	240/70	270/160	6	3	144/216	432	864	648
11 100 815	240/150	270/250	10	3	240/360	720	1440	1080
11 100 817	240/200	270/330	16	3	384/576	1152	2304	1728

### T-BLF 4x40

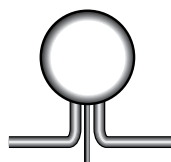
- + Line joints and branchings for max 40 mm ducts with blown fibre
- + Open cable bushing ports, suitable for ducts or cables
- + Suitable for above ground and man-hole installations
- + No IP tightness value stated - Tightness relying on sealing of total duct installation
- + Lockable with item 11 218 056 Locking Cap
- + Included: Instruction Manual 719 990 01
- + Blind Plugs, Cable Bushings, Shrink Tubes, and Multicassettes are ordered separately



T-BLF 4x40 Inline	Interior diameter/ lid height, mm	Exterior diameter/ total height, mm	Max no of Multi- cassettes	No of optional bran- chings	Max splicing capacity			
					Single fibre: 24/36 per Multi- cassette	4-ribbon: 72 per Multi- cassette	8-ribbon: 144 per Multi- cassette	12-ribbon: 108 per Multi- cassette
Art. No.								
11 100 821	240/50	270/140	4	1	96/144	288	576	432
11 100 823	240/70	270/160	6	1	144/216	432	864	648
11 100 825	240/150	270/250	10	1	240/360	720	1440	1080
11 100 827	240/200	270/330	16	1	384/576	1152	2304	1728

### T-BLF 2x40 PARALLEL ENTRY

- + Line joints and branchings for max 40 mm ducts with blown fibre
- + Open cable bushing ports, suitable for ducts or cables
- + Suitable for above ground and man-hole installations
- + No IP tightness value stated - Tightness relying on sealing of total duct installation
- + Lockable with item 11 218 056 Locking Cap
- + Included: Instruction manual 719 990 01
- + Blind Plugs, Cable Bushings, Shrink Tubes, and Multicassettes are ordered separately



T-BLF 2x40 Parallel Entry	Interior diameter/ lid height, mm	Exterior diameter/ total height, mm	Max no of Multi- cassettes	No of optional bran- chings	Max splicing capacity			
					Single fibre: 24/36 per Multi- cassette	4-ribbon: 72 per Multi- cassette	8-ribbon: 144 per Multi- cassette	12-ribbon: 108 per Multi- cassette
Art. No.								
11 100 801	240/50	270/140	4	1	96/144	288	576	432
11 100 803	240/70	270/160	6	1	144/216	432	864	648
11 100 805	240/150	270/250	10	1	240/360	720	1440	1080
11 100 807	240/200	270/330	16	1	384/576	1152	2304	1728



## DISTRIBUTION CLOSURES, ACCESS NETWORKS - TB

- + Distribution closure - for connections to customers and/or other distribution closures
- + Open cable bushing ports for max 35, 56 and 77 microcables with Cable bushing TKT 7x7
- + Oval entry for cable with uncut fibres. (midspan)
- + Ideal for FTTH with microcables, up to 77 customer connecti
- + Lockable with item 11 218 056 Locking Cap
- + Included: Kit for oval entry heat shrink sealing (Shrink Tube and adhesive string bransch-off clip, Instruction Manual 719 990 01, Absorbent Bag)
- + Blind plugs, Cable Bushings and Multicassettes are ordered separately ons possible

TB	Art. No.	Interior diameter/ lid height, mm	Exterior diameter/ total height, mm	Max no of Multi-cassettes	No of optional branchings	Max splicing capacity			
						Single fibre: 24/36 per Multi-cassette	4-ribbon: 72 per Multi-cassette	8-ribbon: 144 per Multi-cassette	12-ribbon: 108 per Multi-cassette
	11 100 961	240/150	270/200	4	5	96/144	288	576	432
	11 100 963	240/150	270/200	6	8	144/216	432	864	648
	11 100 965	240/150	270/200	10	11	240/360	720	1440	1080

Max number of customer connections with microcable, using TKT 7x7: 35, 56 and 77 respectively



## DISTRIBUTION CLOSURES, HEAVY DUTY CABLES - TBK

- + For single fibre center tube and loose tubes, in heavy duty cables.
- + Midspan storage tray kit can be ordered separately.
- + Oval entry for cable with uncut fibres. (midspan)
- + Lockable with item 11 218 056 Locking Cap
- + Included: Kit for oval entry heat shrink sealing (ShrinkTube and bransch-off clip, Instruction Manual 719 990 01, Absorbent Bag)

TBK	Interior diameter/ lid height, mm	Exterior diameter/ total height, mm	Max no of Multi-cassettes	No of optional branchings	Max splicing capacity			
					Single fibre: 24/36 per Multi-cassette	4-ribbon: 72 per Multi-cassette	8-ribbon: 144 per Multi-cassette	12-ribbon: 108 per Multi-cassette
Art. No.								
TBK8 - Closure for loose tube and center tube cables. Typically backbone.								
11 100 938	240/150	270/200	8	8	193/288	576	1152	864
TBK10 - Distribution closure for center tube cables. Typically FTTx								
11 100 948	240/150	270/200	8	11	192/288	576	1152	864



## TA BEACHFLEX CLOSURES

- + Included: Stainless steel frame for strain relief, cable bushings and heat shrink sealing kit, Blind plug and Clamps.
- + Lockable with item 11 218 056 Locking Cap

TA	Interior diameter/ lid height, mm	Exterior diameter/ total height, mm	Max no of Multi-cassettes	No of optional branchings	Max splicing capacity			
					Single fibre: 24/36 per Multi-cassette	4-ribbon: 72 per Multi-cassette	8-ribbon: 144 per Multi-cassette	12-ribbon: 108 per Multi-cassette
Art. No.								
TAJ - Beachjoint for submarine cable								
11 140 171	240/150	270/140	4	1	96/144	288	576	432
TAB - Beach branch off from submarine cable to land cable								
11 140 173	240/150	270/140	4	-	96/144	288	576	432
TAC - Beach connect between submarine cable and land cable								
11 140 175	240/150	270/140	4	1	96/144	288	576	432



## CABLE BUSHINGS OF STAINLESS STEEL &amp; ACCESSORIES

Art. No.	Description	Pack
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**Cable Bushing TKT - Cold Sealing**

for cables and ducts 3-7 mm, with complete sealing kit, putty tape and instruction manual. All branchings are presealed at delivery.



11 212 845

TKT S 3x7  
Three branchings for 3-7 mm cables  
Mountable on cable entry pipe 16 mm inner diameter (exampel TSG)

pc

3 stainless steel nipples included



11 212 840

TKT 7x7  
Seven branchings for 3-7 mm cables  
TKT is a cable bushing for open cable bushing ports

pc

7 stainless steel nipples included



11 216 072

TKT Spanner for branching stainless steel nipples

pc

**Cable Bushing TKH, heat shrink sealing**

With flange nut and O-ring. For mounting onto closure with open cable bushing ports. Kit including emery cloth, heat protection aluminium tape and shrink tubes for all pipes. Use Flange nut spanner (11 216 020 B, page 12) for mounting of cable bushings and blind plugs.

Number of pipes x pipe diameter, mm



11 212 050

1x10, for cable diameter 5.5-10 mm

pc



11 212 060

2x10, for cable diameter 5.5-10 mm

pc



11 212 070

3x12, for cable diameter 5.5-12 mm

pc



11 212 040

4x10, for cable diameter 5.5-10 mm





pc




11 212 018

6x6, for cable diameter 3.5-6 mm

pc

	Art. No.	Description	Pack
	11 212 100	1x18 oval for two cables 9-18 mm diameter	pc
	11 212 132	1x24, with diameter adapter for 9-24 mm cable diameter	pc
	11 212 145	1x30, for cable diameter 17-30 mm	pc
	11 212 350	Split cable bushing, 2x16 oval pipes for two cables 7-18 mm diameter. Ability to add new cable parallel with old cable in existing entry, without disturbing traffic.	pc
	11 209 825	Flexible stainless steel cable bushing 1x25 with L=500mm, incl diameter adapter 9-25 mm cable diameter.	pc

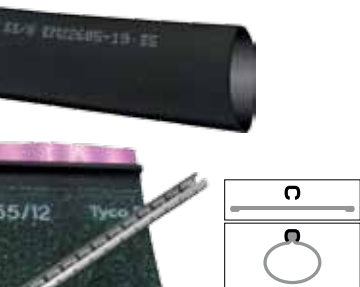
### Blind Plug SS - For sealing of open cable bushing ports

	11 208 010	Blind plug with flange nut and O-ring. Use Flange nut spanner (11216020 B, page 12) for mounting of cable bushings and blind plugs.	pc
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Sealing components for additional mountings


### Heat shrink tubes

For sealing of cables in cable entry pipes and for other sealings  
Max/min diameter - length

	11 219 110	10/3-100 mm	pc
	11 219 123	16/5-100 mm	
	11 219 149	25/8-200 mm	
	11 219 159	33/8-200 mm	
	11 219 169	35/12-200 mm	
	11 219 189	50/16-200 mm	
	11 219 192	63/19-200 mm	
	11 218 307	Heat protection aluminium tape 20 m	
	11 219 300	Zip shrink tube 55/12-170mm	






### Shrinkable End Caps

- for sealing of open entries, max/min diameter

	11 219 016	10/4 mm for 6x6 mm pipe	
	11 219 025	20/8 mm for 1x10, 2x10, 4x10, 3x12 mm	
	11 219 030	35/15 mm for 30-16 mm	
	11 219 035	50/25 mm for oval entry	



	Art. No.	Description	Pack
	<b>Multicassette</b>		
	11 202 202	Multicassette fibre organizer Made of resistant polycarbonate. Large fibre bending radius.	pack of 2
	<b>Multicassette Holder</b>		
	11 216 100	Horizontal, for all side entry, "pan" closures (A)	pc
	11 216 105	Vertical, for bottom entry, "dome" closures (B)	pc
	<b>Tool Kit</b>		
	11 216 020	Kit including: Multicassette opener (A) Cable bushing flange nut and blind plug spanner (B) V-clamp spanner (C)	kit
<b>Cable Entry Tools</b>			
	11 216 110	Midspan Cable entry tool with radius protection. For TS, TSG, TST, TB and other oval entry models	pc
	11 219 010	Insert clip with string adhesive For sealing of space between cables installed in oval entry  <i>Picture shows installed insert clip between two cables on heat shrink tube</i>	pc
<b>Special accessories</b>			
	11 202 102	Storage tray for TBK8 Included: "Midspan" Manual for loose tube	pc
	11 202 100	Storage tray for pan closure, i.e. TSG	pc
	11 216 122	Work Position Holder – for handling of loose tube Included: "Midspan" manual for loose tube	pc

	Art. No.	Description	Pack
	11 218 056	Locking cap for padlock (page 18)	pc
	<b>T240 Closure Lid</b> for change of height of installed closure, mm		
	11 218 010	70 mm, for maximum 6 Multicassettes	pc
	11 218 015	150 mm, for maximum 10 Multicassettes	pc
	11 218 020	200 mm, for maximum 16 Multicassettes	pc
	11 218 040	Extension shaft 30 mm for extra 2 Multicassettes	pc
	<b>Mounting</b>		
	11 214 102	Pole Bracket for ADSS	pc
	11 214 106	Pole Bracket for OPGW	pc
	11 218 2XX	Cable clamps for OPGW and ADSS, corresponding to cable diameter XX	pc
	11 214 005	Mounting bracket, wall or rack for hooked or fixed mounting	pc
	11 214 030	Pole bracket for horizontal closure	pc
	11 214 040	Pole bracket for vertical closure	pc
<b>Other accessories</b>			
	11 218 345	Splice protection sleeve for single fibre 45 mm	pc
	11 218 355	Splice protection sleeve ribbon for 4-, 8- and 12-ribbon	pc
	11 218 360	Cable ties 98 x 2.5 mm	100-pack
	11 218 300	Absorbent bag 10 gr	pc
	11 218 315	Cable cleaner	10
	11 218 343	Branching kit for center tube cables	pc
<b>Tightness Test</b>			
	11 216 115	Tightness Test Kit for T240, Lid, air overpressure pump and air bubble indicator	pc
	11 216 117	Leakage air bubble indicator liquid 400 ml	pc



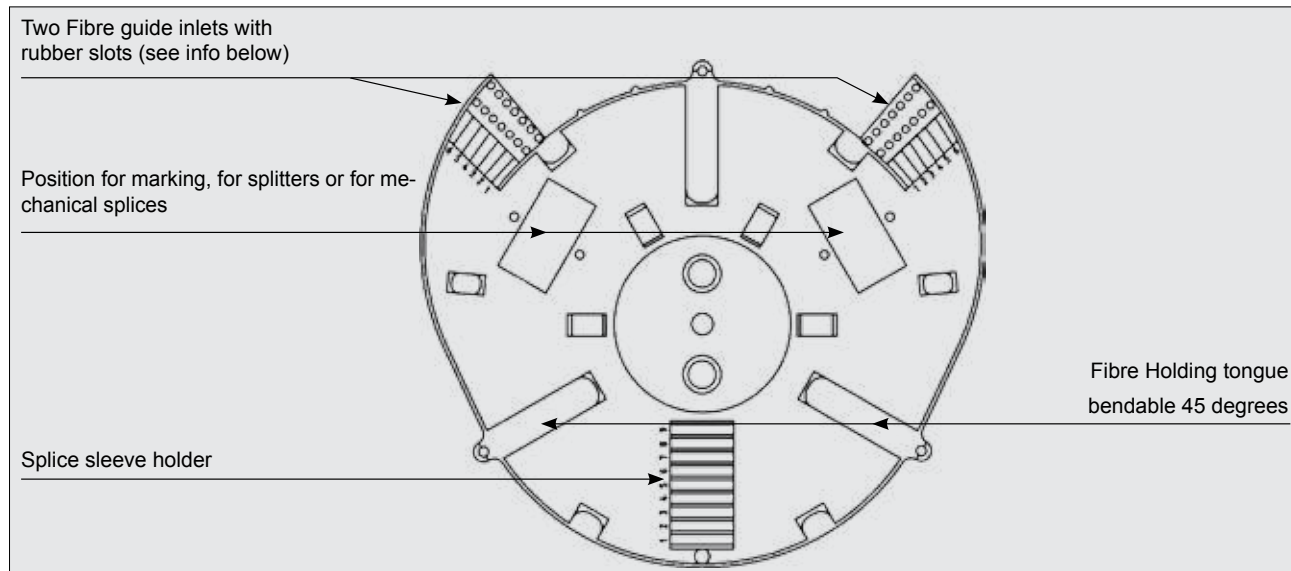
## T240 MULTICASSETTE FIBRE COUNT CAPACITY

### FIBRE COUNT CAPACITY

Each Multicassette has 9 sleeve holders; each can hold a maximum of four single fibres, two 4-ribbon, two 8-ribbon fibre sleeves or one 12-ribbon fibre sleeve. This chart shows the maximum number of fibres that can be installed. Maximum fibre count capacity requires optimal fibre conditions.

NUMBER OF MULTICASSETTES CONFIGURATION	Number of physical cables to handle inside closure / Number of fibres								
	1	2	4	6	8	10	12	14	16
Single Fibre 24	24/24	48/48	96/96	144/144	192/192	240/240	288/288	336/336	388/388
Single Fibre 36	36/36	72/72	144/144	216/216	288/288	360/360	432/432	504/504	576/576
Ribbon, 4 fibres, 1 per sleeve holder	9/36	18/72	36/144	54/216	72/288	93/360	108/432	126/504	144/576
Ribbon, 4 fibres, 2 per sleeve holder	18/72	36/144	72/288	108/432	144/576	180/720	216/864	252/1008	288/1152
Ribbon, 8 fibres, 1 per sleeve holder	9/72	18/144	36/288	54/432	72/536	90/720	126/360	126/1008	144/1152
Ribbon, 8 fibres, 2 per sleeve holder	18/144	36/288	72/576	108/864	144/1152	180/1440	216/432	252/2016	288/2304
Ribbon, 12 fibres, 1 per sleeve holder	9/108	18/216	36/432	54/648	72/864	90/1080	108/1296	126/1512	144/1944

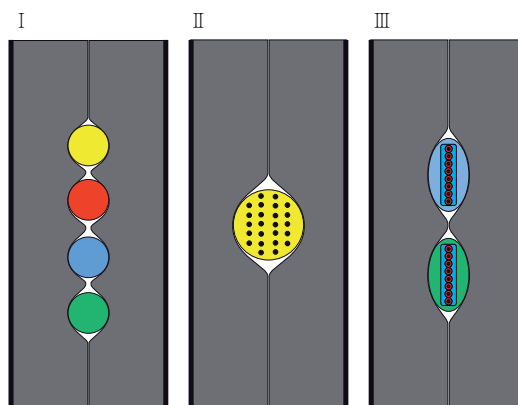
### TYKOFLEX MULTICASSETTE FIBRE ORGANISER



### FIBRE GUIDE

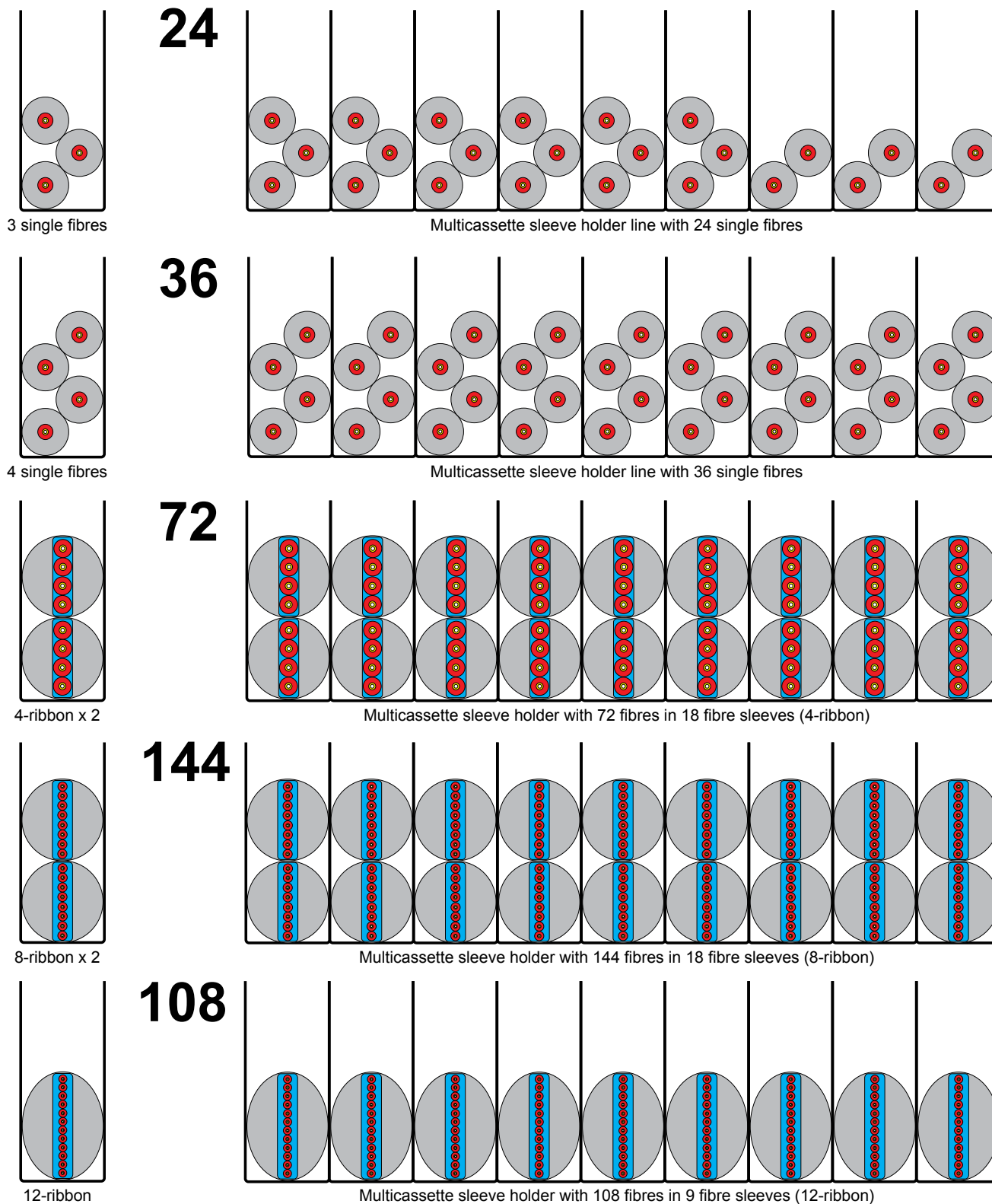
The fibres are placed into the Fibre Guide rubber slots in different configurations. Here are three examples:

- I Four single fibres
- II One tube or cable with several single fibres
- III Two ribbon fibres



## MULTICASSETTE SLEEVE HOLDERS

Sleeves in each position are secured with rubber holder element according to Instruction manual.

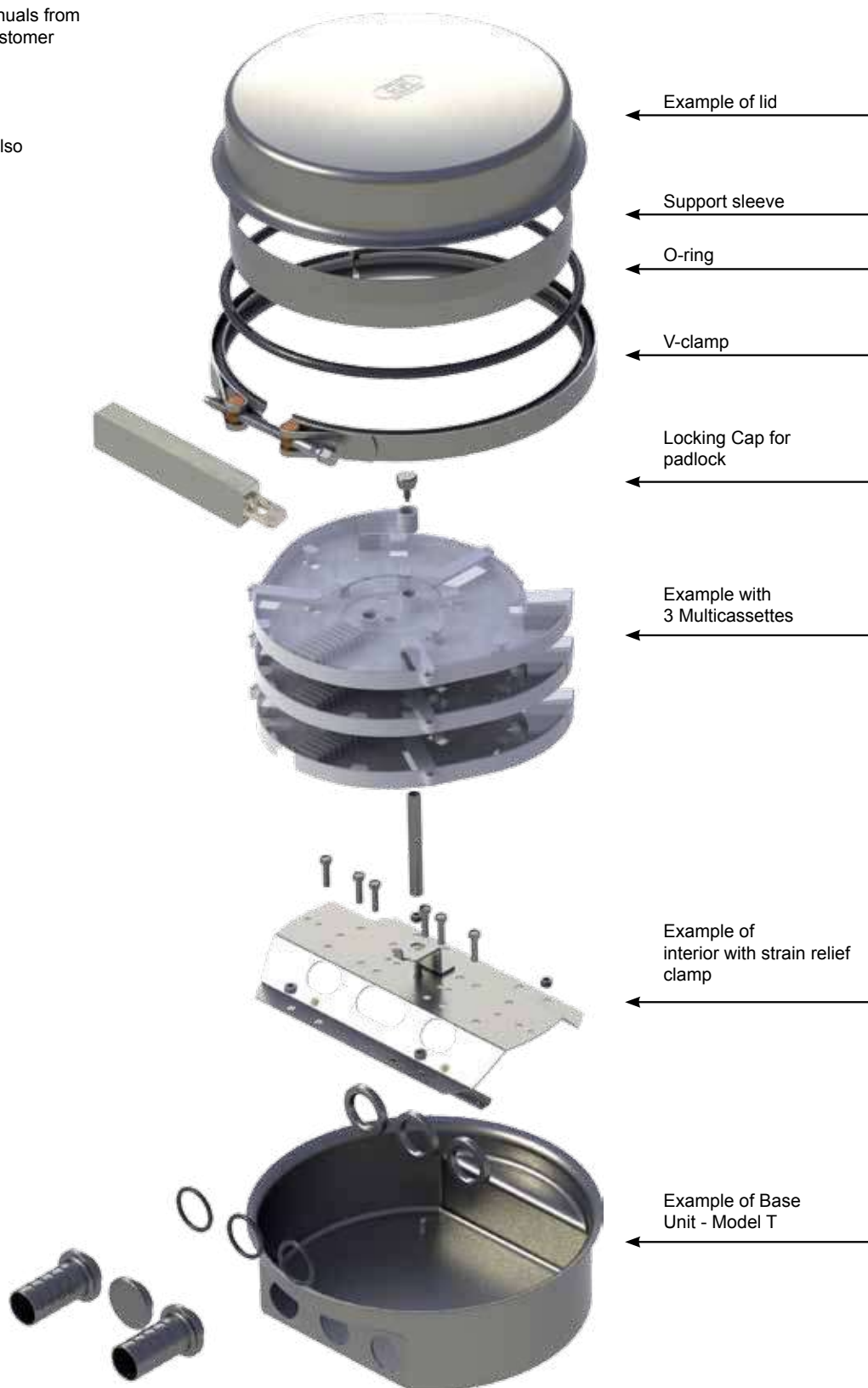




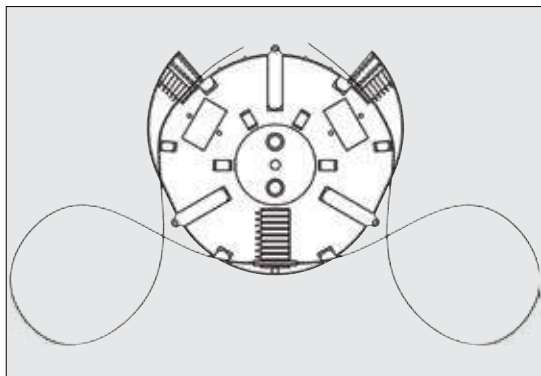


There are two kinds of manuals from Tykoflex - standard and customer adapted.

The standard manuals always accompany the product package and are also downloadable from [www.tykoflex.se](http://www.tykoflex.se).



**SOME EXAMPLE PICTURES FROM INSTRUCTIONS USED IN T240 MANUALS**



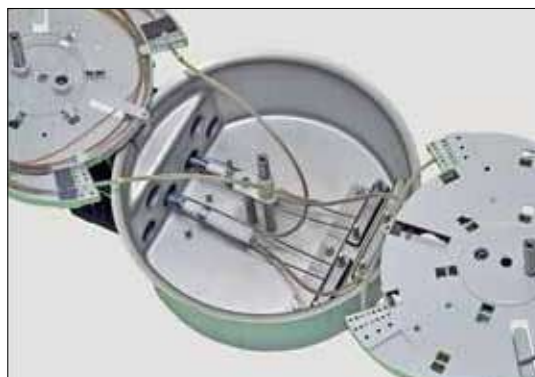
"The Ribbon Twist" - as simple as it looks.



Opening...



... and closing of strain relief clamp



Multicassette in work position



Multicassette in position



Mounting of support sleeve



Mounting of O-ring



Closing of closure